**In the Claims:**

Please amend Claims 1, 4-5, 7, 9, 10-12, 17-20, 24-26, 29, 33, 35, 37-40, 45-48, 52-54, 60-61, 63, 65-68, 73-76, 80-82, 88, 91-92, 94, 96-99, 103-104, 108, 110-112, 114, 116, 119-120, 122, 126, 129, 132-134, 137-138, 140-141, 144-145, 147, 149-152, 157-160, 164-166, 169, 173, 175, 177-180, 185-188 and 192-193. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended)     A method of analyzing the energy requirements of a building using a computer network, comprising:

under control of a first process:

providing a first representation of the building, wherein the first representation of the building includes a complete and detailed geometry of: the building, spaces in the building, building surfaces and building openings;

providing the first representation to a second process on the computer network;

under control of the second process:

performing an energy analysis of the building based on the first representation by determining energy use and cost of the building using information that includes one or more of the building's geographical location, three-dimensional geometry, construction materials, utility rate schedule and HVAC equipment;

providing results of the energy analysis wherein the results are available on the computer network; and

utilizing the results of the energy analysis in order to optimize the first representation of the building wherein optimizing includes performing one or more simulations while varying parameters of the first representation of the building and ranking results of the simulations according to a predetermined criteria;

wherein the first process and the second process ~~can communicate~~ communicate using the computer network.


2. (Canceled)

3. (Original)   The method of claim 1 wherein:

the first representation is provided by a 3D-CAD or BIMA application.

4. (Currently Amended)        The method of claim 1, further comprising:

automatically providing default values for the first representation appropriate for performing an energy analysis of the building, wherein the default values ~~can include~~ include at least one of: 1) heating, ventilation and/or air conditioning equipment;   2) weather-related information; 3) interior/exterior constructions; 4) interior/exterior lighting equipment; 5) schedules of operations for interior/exterior lights; 6) interior/exterior equipment; 7) schedules of operations for interior/exterior equipment; 8) air flow information; 9) schedules of operations for heating, ventilation and/or air conditioning equipment; 10) number of people; 11) schedules of occupancy for people; and 12) any additional information necessary to conduct a building energy analysis.

5. (Currently Amended)        The method of claim 4 wherein:

the default values ~~can be~~ are based on 1) building type; and 2) geographic location of the building.

6. (Original)   The method of claim 4, further comprising:

incorporating the default values into the first representation of the building.

7. (Currently Amended)        The method of claim 1, wherein:

the first representation of the building ~~can be~~ is in one of the following forms: 1) Extensible Markup Language (XML); 2) Green Building XML (gbXML); and 3) International Alliance for Interoperability Industry Foundation Classes.

8. (Original)   The method of claim 7, wherein:

the first representation of the building is at least one of: 1) compressed; 2) encoded; and 3) encrypted.

9. (Currently Amended)        The method of claim 1 wherein:

the first representation of the building ~~can include~~ includes at least one of: 1) a building type; 2) a space; 3) a three dimensional representation of the building; 4) a location of the building; 5) at least one surface; and 6) an opening.

10. (Currently Amended)    The method of claim 9 wherein:

the at least one space ~~can include~~ includes at least one of:  1) space type; and 2) at least one surface.

11. (Currently Amended)    The method of claim 1 wherein:

the results of the energy analysis ~~can include~~ include at least one of: 1) energy cost over a period of time; 2) peak demand over a period of time; 3) fuel use over a period of time; 4) electricity use over a period of time; 5) airflow requirements over a period of time; 6) comfort level over a period of time; 7) temperatures over a period of time; 8) cooling equipment sizes; 9) whether or not a building complies with applicable energy codes; 10) what needs to be done in order to bring a building into conformance with applicable energy codes; 11) heating equipment sizes; and 12) any information in the first representation and/or any default values provided for the first representation.

12. (Currently Amended)    The method of claim 1 wherein:

the results of the energy analysis ~~can apply~~ apply to at least one of: 1) the building; 2) one or more spaces within the building; and 3) any information in the first representation and/or any default values provided for the first representation.

13. (Original)  The method of claim 1 wherein:

the results of the energy analysis are persisted.

14. (Original)  The method of claim 1 further comprising:

incorporating the results of the energy analysis into a second representation of the building, wherein the second representation of the building is based on the first representation.

15. (Original)  The method of claim 4 further comprising:

incorporating the results of the energy analysis into a second representation of the building, wherein the second representation of the building is based on the first representation.

16. (Canceled)

17. (Currently Amended)    The method of claim 16 wherein:

optimization ~~can include~~ includes optimizing at least one of the following parameters: 1) building orientation; 2) glazing; 3) construction materials; 4) heating air conditioning and/or ventilation systems; 5) lighting and light control schemes; and 6) any information in the first representation.

18. (Currently Amended)    The method of claim 17 wherein:

each of the parameters ~~can be~~ is held constant or restricted to a range of possible values.

19. (Currently Amended)    The method of claim 1 wherein:

the energy analysis ~~can be~~ is performed in whole or in part by a computer software program. ~~at least one of the following programs: 1) DOE-2; and 2) EnergyPlus.~~

20. (Currently Amended)    The method of claim 1 wherein:

the computer network ~~can include~~ includes at least one of the following: 1) the Internet; 2) public networks; and 3) private networks.

21. (Original)  The method of claim 1 wherein:

the first representation of the building is a 3D mono-planarization representation.

22. (Original)  The method of claim 1, further comprising:

providing content to a user based on information in at least one of: 1) the first representation; and 2) the results.

23. (Original)  The method of claim 4, further comprising:

providing content to a user based on information in at least one of: 1) the first representation; 2) the defaults; and 3) the results.

24. (Currently Amended)    The method of claim 22 wherein:
    the content ~~can include~~ includes advertisements.

25. (Currently Amended)    The method of claim 24 wherein:
    an advertisement ~~can be~~ is selected by a user; and
    wherein the selection ~~can cause~~ causes at least one of the following to be made accessible to a third party: 1) user contact information; 2) information based on the first representation; 3) information based on the energy analysis results; and 4) information based on default values appropriate for performing an energy analysis of the building.

26. (Currently Amended)    The method of claim 24 wherein:
    an advertisement ~~can be~~ is selected by a user; and
    wherein the selection ~~can cause~~ causes the user to be prompted for permission to make accessible at least one of the following to a third party:  1) user contact information; 2) information based on the first representation; 3) information based on the energy analysis results; and 4) information based on default values appropriate for performing an energy analysis of the building.

27. (Original)  The method of claim 1, further comprising:
    requesting a bid from a third party based on at least one of: 1) the first representation; 2) the energy analysis results; and 3) default values appropriate for performing an energy analysis of the building.

28. (Original)  The method of claim 1 wherein:
    a first user can allow other users to access and/or manipulate at least one of: 1) the first representation; 2) the energy analysis results; and 3) default values appropriate for performing an energy analysis of the building.

29. (Currently Amended)     A method of analyzing the energy requirements of a building using a computer network, comprising:

provinding a first representation of the building wherein the first representation is available on the computer network, and wherein the first representation is a comprehensive and accurate geometric representation of the building;

automatically providing default values for the first representation appropriate for performing an energy simulation of the building wherein the default values include one or more of: 1) heating ventilation and air conditioning equipment (HVAC); 2) whether-related information; 3) interior/exterior constructions; 4) interior/exterior lighting equipment; 5) schedules of operations for interior/exterior lights; 6) interior/exterior equipment; 7) schedules of operations for interior/exterior equipment; 8) air flow information; 9) schedules of operations for heating, ventilation and/or air conditioning equipment; 10) number of people; 11) schedules of occupancy for people; and 12) any additional information necessary to conduct a building energy analysis;

performing an energy analysis of the building based on the first representation and the default values;

providing results of the energy analysis wherein the results are available on the computer network; and

wherein the default values ~~can be~~ <u>are</u> based on at least one of: 1) type of the building; 2) geographic location of the building; 3) size of the building; and 4) applicable energy codes.


30. (Original)  The method of claim 29 wherein:

the comprehensive and accurate geometric representation of the building includes a complete and detailed geometry of:  the building, spaces in the building, building surfaces and building openings.


31. (Original)  The method of claim 29 wherein:

the first representation is provided by a 3D-CAD or BIMA application.


32. (Canceled)

33. (Currently Amended)    The method of claim 32 wherein:

the default values ~~can be~~ are based on 1) building type; and 2) geographic location of the building.

34. (Original)  The method of claim 32, further comprising:

incorporating the default values into the first representation of the building.

35. (Currently Amended)    The method of claim 29 wherein:

the first representation of the building ~~can be~~ are in one of the following forms: 1) Extensible Markup Language (XML); 2) Green Building XML (gbXML); and 3) International Alliance for Interoperability Industry Foundation Classes.

36. (Original)  The method of claim 35 wherein:

the first representation of the building is at least one of: 1) compressed; 2) encoded; and 3) encrypted.

37. (Currently Amended)    The method of claim 29 wherein:

the first representation of the building ~~can include~~ includes at least one of: 1) a building type; 2) a space; 3) a three dimensional representation of the building; 4) a location of the building; 5) at least one surface; and 6) an opening.

38. (Currently Amended)    The method of claim 37 wherein:

the at least one space ~~can include~~ includes at least one of:  1) space type; and 2) at least one surface.

39. (Currently Amended)    The method of claim 29 wherein:

the results of the energy analysis ~~can include~~ include at least one of: 1) energy cost over a period of time; 2) peak demand over a period of time; 3) fuel use over a period of time; 4) electricity use over a period of time; 5) airflow requirements over a period of time; 6) comfort level over a period of time; 7) temperatures over a period of time; 8) cooling equipment sizes; 9) whether or not a building complies with applicable energy codes; 10) what needs to be done in

order to bring a building into conformance with applicable energy codes; 11) heating equipment sizes; and 12) any information in the first representation and/or the default values provided for the first representation.

40. (Currently Amended)    The method of claim 29 wherein:

the results of the energy analysis ~~can apply~~ apply to at least one of: 1) the building; 2) one or more spaces within the building; and 3) any information in the first representation and/or the default values provided for the first representation.

41. (Original)  The method of claim 29 wherein:

the results of the energy analysis are persisted.

42. (Original)  The method of claim 29 further comprising:

incorporating the results of the energy analysis into a second representation of the building, wherein the second representation of the building is based on the first representation.

43. (Original)  The method of claim 32 further comprising:

incorporating the results of the energy analysis into a second representation of the building, wherein the second representation of the building is based on the first representation.

44. (Original)  The method of claim 29, further comprising:

utilizing the results of the energy analysis to optimize the first representation of the building.

45. (Currently Amended)    The method of claim 44 wherein:

optimization ~~can include~~ includes optimizing at least one of the following parameters: 1) building orientation; 2) glazing; 3) construction materials; 4) heating air conditioning and/or ventilation systems; 5) lighting and light control schemes; and 6) any information in the first representation.

46. (Currently Amended)    The method of claim 45 wherein:

each of the parameters ~~can be~~ is held constant or restricted to a range of possible values.

47. (Currently Amended)    The method of claim 29 wherein:

the energy analysis ~~can be~~ is performed in whole or in part by <u>a computer software program.</u> ~~at least one of the following programs: 1) DOE-2; and 2) EnergyPlus.~~

48. (Currently Amended)    The method of claim 29 wherein:

the computer network ~~can include~~ includes at least one of the following: 1) the Internet; 2) public networks; and 3) private networks.

49. (Original)  The method of claim 29 wherein:

the first representation of the building is a 3D mono-planarization representation.

50. (Original)  The method of claim 29, further comprising:

providing content to a user based on information in at least one of: 1) the first representation; and 2) the results.

51. (Original)  The method of claim 32, further comprising:

providing content to a user based on information in at least one of: 1) the first representation; 2) the defaults; and 3) the results.

52. (Currently Amended)    The method of claim 50 wherein:

the content ~~can include~~ includes advertisements.

53. (Currently Amended)    The method of claim 52 wherein:

an advertisement ~~can be~~ is selected by a user; and

wherein the selection ~~can cause~~ causes at least one of the following to be made accessible to a third party: 1) user contact information; 2) information based on the first representation; 3) information based on the energy analysis results; and 4) information based on default values appropriate for performing an energy analysis of the building.

54. (Currently Amended)     The method of claim 52 wherein:

an advertisement ~~can be~~ is selected by a user; and

wherein the selection ~~can cause~~ causes the user to be prompted for permission to make accessible at least one of the following to a third party:  1) user contact information; 2) information based on the first representation; 3) information based on the energy analysis results; and 4) information based on default values appropriate for performing an energy analysis of the building.

55. (Original)  The method of claim 29, further comprising:

requesting a bid from a third party based on at least one of: 1) the first representation; 2) the energy analysis results; and 3) default values appropriate for performing an energy analysis of the building.

56. (Original)  The method of claim 29 wherein:

a first user can allow other users to access and/or manipulate at least one of: 1) the first representation; 2) the energy analysis results; and 3) default values appropriate for performing an energy analysis of the building.

57. (Previously Presented)     A method for performing energy analysis of a building using a computer network, comprising:

receiving from a process on the computer network a first representation of the building or a reference to the first representation of the building;

automatically providing default values for the first representation appropriate for performing an energy simulation of the building;

performing an energy analysis of the building by providing the first representation and the default values to an energy analysis simulator; and

providing results of the energy analysis wherein the results are available on the computer network; and

wherein the first representation of the building includes a complete and detailed geometry of:  the building, spaces in the building, building surfaces and building openings.

58. (Canceled)

59. (Original) The method of claim 57 wherein:

the first representation is provided by a 3D-CAD or BIMA application.

60. (Currently Amended)     The method of claim 57, further comprising:

automatically providing default values for the first representation appropriate for performing an energy analysis of the building, wherein the default values ~~can include~~ include at least one of: 1) heating, ventilation and/or air conditioning equipment;   2) weather-related information; 3) interior/exterior constructions; 4) interior/exterior lighting equipment; 5) schedules of operations for interior/exterior lights; 6) interior/exterior equipment; 7) schedules of operations for interior/exterior equipment; 8) air flow information; 9) schedules of operations for heating, ventilation and/or air conditioning equipment; 10) number of people; 11) schedules of occupancy for people; and 12) any additional information necessary to conduct a building energy analysis.

61. (Currently Amended)     The method of claim 60 wherein:

the default values ~~can be~~ are based on 1) building type; and 2) geographic location of the building.

62. (Original) The method of claim 60, further comprising:

incorporating the default values into the first representation of the building.

63. (Currently Amended)     The method of claim 57, wherein:

the first representation of the building ~~can be~~ is in one of the following forms: 1) Extensible Markup Language (XML); 2) Green Building XML (gbXML); and 3) International Alliance for Interoperability Industry Foundation Classes.

64. (Original) The method of claim 63, wherein:

the first representation of the building is at least one of: 1) compressed; 2) encoded; and 3) encrypted.

65. (Currently Amended)    The method of claim 57 wherein:

the first representation of the building ~~can include~~ includes at least one of: 1) a building type; 2) a space; 3) a three dimensional representation of the building; 4) a location of the building; 5) at least one surface; and 6) an opening.

66. (Currently Amended)    The method of claim 65 wherein:

the at least one space ~~can include~~ includes at least one of:  1) space type; and 2) at least one surface.

67. (Currently Amended)    The method of claim 57 wherein:

the results of the energy analysis ~~can include~~ include at least one of: 1) energy cost over a period of time; 2) peak demand over a period of time; 3) fuel use over a period of time; 4) electricity use over a period of time; 5) airflow requirements over a period of time; 6) comfort level over a period of time; 7) temperatures over a period of time; 8) cooling equipment sizes; 9) whether or not a building complies with applicable energy codes; 10) what needs to be done in order to bring a building into conformance with applicable energy codes; 11) heating equipment sizes and 12) any information in the first representation and/or any default values provided for the first representation.

68. (Currently Amended)    The method of claim 57 wherein:

the results of the energy analysis ~~can apply~~ apply to at least one of: 1) the building; 2) one or more spaces within the building; and 3) any information in the first representation and/or any default values provided for the first representation.

69. (Original)  The method of claim 57 wherein:

the results of the energy analysis are persisted.

70. (Original)  The method of claim 57 further comprising:

incorporating the results of the energy analysis into a second representation of the building, wherein the second representation of the building is based on the first representation.

71. (Original)  The method of claim 60 further comprising:

incorporating the results of the energy analysis into a second representation of the building, wherein the second representation of the building is based on the first representation.

72. (Original)  The method of claim 57, further comprising:

utilizing the results of the energy analysis to optimize the first representation of the building.

73. (Currently Amended)      The method of claim 72 wherein:

optimization ~~can include~~ includes optimizing at least one of the following parameters: 1) building orientation; 2) glazing; 3) construction materials; 4) heating air conditioning and/or ventilation systems; 5) lighting and light control schemes; and 6) any information in the first representation.

74. (Currently Amended)      The method of claim 60 wherein:

each of the parameters ~~can be~~ is held constant or restricted to a range of possible values.

75. (Currently Amended)      The method of claim 57 wherein:

the energy analysis ~~can be~~ is performed in whole or in part by a computer software program. ~~at least one of the following programs: 1) DOE-2; and 2) EnergyPlus.~~

76. (Currently Amended)      The method of claim 57 wherein:

the computer network ~~can include~~ includes at least one of the following: 1) the Internet; 2) public networks; and 3) private networks.

77. (Original)  The method of claim 57 wherein:

the first representation of the building is a 3D mono-planarization representation.

78. (Original)  The method of claim 57, further comprising:

providing content to a user based on information in at least one of: 1) the first representation; and 2) the results.

79. (Original)  The method of claim 60, further comprising:

providing content to a user based on information in at least one of: 1) the first representation; 2) the defaults; and 3) the results.

80. (Currently Amended)      The method of claim 78 wherein:

the content ~~can include~~ includes advertisements.

81. (Currently Amended)      The method of claim 80 wherein:

an advertisement ~~can be~~ is selected by a user; and

wherein the selection ~~can cause~~ causes at least one of the following to be made accessible to a third party: 1) user contact information; 2) information based on the first representation; 3) information based on the energy analysis results; and 4) information based on default values appropriate for performing an energy analysis of the building.

82. (Currently Amended)      The method of claim 80 wherein:

an advertisement ~~can be~~ is selected by a user; and

wherein the selection ~~can cause~~ causes the user to be prompted for permission to make accessible at least one of the following to a third party:  1) user contact information; 2) information based on the first representation; 3) information based on the energy analysis results; and 4) information based on default values appropriate for performing an energy analysis of the building.

83. (Original)  The method of claim 57, further comprising:

requesting a bid from a third party based on at least one of: 1) the first representation; 2) the energy analysis results; and 3) default values appropriate for performing an energy analysis of the building.

84. (Original)  The method of claim 57 wherein:

a first user can allow other users to access and/or manipulate at least one of: 1) the first representation; 2) the energy analysis results; and 3) default values appropriate for performing an energy analysis of the building.

85. (Previously Presented)    A method for optimizing a building represented by a three dimensional (3D) volumetric representation, said method comprising:

automatically performing at least one energy simulation of the representation while varying at least one of the following representation parameters: 1) building orientation; 2) type of glass; 3) heating ventilation air conditioning (HVAC) equipment; and 4) type of constructions;

automatically ranking the results of the at least one energy simulation according to pre-determined criteria; and

wherein the 3D volumetric representation of the building is a comprehensive and accurate geometric representation of the building that includes a complete and detailed geometry of: the building, spaces in the building, building surfaces and building openings.

86. (Canceled)

87. (Original)  The method of claim 85, further comprising:

automatically optimizing at least one of the following parameters: 1) building orientation; 2) glazing; 3) construction materials; 4) heating air conditioning and/or ventilation systems; 5) lighting and light control schemes; and 6) any information in the representation.

88. (Currently Amended)     The method of claim 85 wherein:

each of the parameters ~~can be~~ is held constant or restricted to a range of possible values.

89. (Original)  The method of claim 85, further comprising:

automatically converting the 3D volumetric representation of the building to a 3D mono-planar representation.

90. (Original)  The method of claim 85 wherein:

the representation is provided by a 3D-CAD or BIMA application.

91. (Currently Amended)    The method of claim 85, further comprising:

automatically providing default values for the representation appropriate for performing an energy analysis of the building, wherein the default values ~~can include~~ include at least one of: 1) heating, ventilation and/or air conditioning equipment;  2) weather-related information; 3) interior/exterior constructions; 4) interior/exterior lighting equipment; 5) schedules of operations for interior/exterior lights; 6) interior/exterior equipment; 7) schedules of operations for interior/exterior equipment; 8) air flow information; 9) schedules of operations for heating, ventilation and/or air conditioning equipment; 10) number of people; 11) schedules of occupancy for people; and 12) any additional information necessary to conduct a building energy analysis.

92. (Currently Amended)    The method of claim 91 wherein:

the default values ~~can~~ are ~~be~~ based on 1) building type; and 2) geographic location of the building.

93. (Original)  The method of claim 91, further comprising:

incorporating the default values into the representation of the building.

94. (Currently Amended)    The method of claim 85, wherein:

the representation of the building ~~can be~~ is in one of the following forms: 1) Extensible Markup Language (XML); 2) Green Building XML (gbXML); and 3) International Alliance for Interoperability Industry Foundation Classes.

95. (Original)  The method of claim 94, wherein:

the representation of the building is at least one of: 1) compressed; 2) encoded; and 3) encrypted.

96. (Currently Amended)    The method of claim 85 wherein:

the representation of the building ~~can include~~ includes at least one of: 1) a building type; 2) a space; 3) a three dimensional representation of the building; 4) a location of the building; 5) at least one surface; and 6) an opening.

97. (Currently Amended)     The method of claim 96 wherein:

the at least one space ~~can include~~ includes at least one of:  1) space type; and 2) at least one surface.

98. (Currently Amended)     The method of claim 85 wherein:

the results of the simulation ~~can include~~ include at least one of: 1) energy cost over a period of time; 2) peak demand over a period of time; 3) fuel use over a period of time; 4) electricity use over a period of time; 5) airflow requirements over a period of time; 6) comfort level over a period of time; 7) temperatures over a period of time; 8) cooling equipment sizes; 9) whether or not a building complies with applicable energy codes; 10) what needs to be done in order to bring a building into conformance with applicable energy codes; 11) heating equipment sizes; and 12) any information in the representation and/or any default values provided for the first representation.

99. (Currently Amended)     The method of claim 85 wherein:

the results of the simulation ~~can apply~~ apply to at least one of: 1) the building; 2) one or more spaces within the building; and 3) any information in the representation and/or any default values provided for the first representation.

100. (Original) The method of claim 85 wherein:

the results of the simulation are persisted.

101. (Original) The method of claim 85 further comprising:

incorporating the results of the simulation into a second representation of the building, wherein the second representation of the building is based on the first representation.

102. (Original) The method of claim 91 further comprising:

incorporating the results of the simulation into a second representation of the building, wherein the second representation of the building is based on the first representation.

103. (Currently Amended)    A method for allowing a user to interact with content including product and service advertisements or product placement on building instance for analysis, using a computer network, comprising:

automatically providing the content to the user based on a set of criteria associated with the building characteristics including its energy use information and wherein at least one of the criteria is satisfied based on a representation of a building ~~and/or~~ and results of an energy analysis of the representation of the building;

allowing the user to interact with the content; and

wherein the interaction ~~can result~~ results in at least one of: 1) a request for information; 2) a request for a bid; 3) permission to access information associated with the user; 4) providing permission to access information associated with the representation of the building and/or results of the energy analysis.

104. (Currently Amended)    The method of claim 103 wherein:

permission to access information ~~can be~~ is given for an aggregate view of the information or for the entirety of the information.

105. (Original)The method of claim 103 wherein:

the content is provided to the user via the World Wide Web.

106. (Original)The method of claim 103, further comprising:

performing an energy analysis of the building representation.

107. (Original)The method of claim 103, further comprising:

incorporating default values into the first representation of the building.

108. (Currently Amended)    The method of claim 103 wherein:

the representation of the building ~~can be~~ is in one of the following forms: 1) Extensible Markup Language (XML); 2) Green Building XML (gbXML); and 3) International Alliance for Interoperability Industry Foundation Classes.

109. (Original)The method of claim 108 wherein:

the representation of the building is at least one of: 1) compressed; 2) encoded; and 3) encrypted.

110. (Currently Amended)     The method of claim 103 wherein:

the representation of the building ~~can include~~ includes at least one of: 1) a building type; 2) a space; 3) a three dimensional representation of the building; 4) a location of the building; 5) at least one surface; and 6) an opening.

111. (Currently Amended)     The method of claim 103 wherein:

the results of the energy analysis ~~can include~~ includes at least one of: 1) energy cost over a period of time; 2) peak demand over a period of time; 3) fuel use over a period of time; 4) electricity use over a period of time; 5) airflow requirements over a period of time; 6) comfort level over a period of time; 7) temperatures over a period of time; 8) cooling equipment sizes; 9) whether or not a building complies with applicable energy codes; 10) what needs to be done in order to bring a building into conformance with applicable energy codes; 11) heating equipment sizes; and 12) any information in the representation and/or any default values provided for the first representation.

112. (Currently Amended)     The method of claim 103 wherein:

the results of the energy analysis ~~can apply~~ apply to at least one of: 1) the building; 2) one or more spaces within the building; and 3) any information in the representation and/or any default values provided for the first representation.

113. (Original)The method of claim 103, further comprising:

utilizing the results of the energy analysis to optimize the first representation of the building.

114. (Currently Amended)     The method of claim 103 wherein:

the computer network ~~can include~~ includes at least one of the following: 1) the Internet; 2) public networks; and 3) private networks.

115. (Previously Presented)   The method of claim 103 wherein:

the content includes at least one of: 1) a uniform resource locator (URL); 2) a hypertext markup language (HTML) document; 3) an extensible markup language (XML) document; 4) an audio/visual presentation; 5) text; and 6) an image.

116. (Currently Amended)     A method for generating a qualified result list based on a building representation and using a computer network, comprising:

maintaining a database of at least one information provider, wherein each of the at least one information providers has associated with it a set of building criteria and content;

identifying a result set of the at least one information providers that have criteria at least partially satisfied by the building representation and/or and an energy analysis of the building representation;

ranking the information providers in the result set into a result list; and

providing content via the computer network corresponding to at least the highest ranked information provider in the result list.

117. (Original)The method of claim 116 wherein:

the ranking is based on at least one of the following:  1) the number of criteria satisfied for a given information provider; 2) an amount of credit an information provider will provide in exchange for placement in the result list; and 3) content category.

118. (Original)The method of claim 117 wherein:

the content category corresponds to a product type.

119. (Currently Amended)     The method of claim 116 wherein:

content can include includes at least one of: 1) a uniform resource locator (URL); a hypertext markup language (HTML) document; 3) an extensible markup language (XML) document; 4) an audio/visual presentation; 5) text; and 6) an image.

120. (Currently Amended)     The method of claim 116 wherein:

the content associated with an information provider ~~can include~~ includes promotional content.

121. (Original)The method of claim 116 wherein:

the energy analysis of the building representation has been optimized.

122. (Currently Amended)    The method of claim 116 wherein:

the criteria ~~can include~~ includes at least one of: building area, building type, building location, building space types, cooling and/or heating loads, total building glazing area, heat load on glazing, glazing area by space, amount of glazing by elevation, minimum SHGC (Solar Heat Gain Coefficient) requirement, minimum U-value requirement, glazing dimensions, building heating and/or cooling loads, building and/or space CFM (Cubic Feet per Minute) requirements, total building cooling and heating loads, heating and cooling load by space, building and space latent and sensible cooling loads, design day conditions, building operation schedule, building type, space types, potential for daylighting and/or occupancy lighting controls, and anything in the building representation and/or energy analysis of the building representation.

123. (Original)The method of claim 116, further comprising:

determining a relevancy score for each of the information providers at least one of: 1) the result set; and 2) the result list.

124. (Original)The method of claim 116 wherein the step of providing via the computer network the at least highest ranked information provider includes:

presenting the at least highest ranked information provider(s) to a user in order of rank.

125. (Original)The method of claim 116 wherein the step of providing via the computer network the at least highest ranked information provider includes:

presenting the at least highest ranked information provider(s) according to information category.

126. (Currently Amended)    A method for providing a plurality of defaults for a building using a computer network, comprising:

indent providing a representation of the building on the computer network;

indent automatically providing for the representation at least one of the following defaults: 1) heating, ventilation and/or air conditioning equipment (HVAC); and 2) weather-related information; and

indent wherein the defaults ~~can be~~ are based on at least one of: 1) type of the building; 2) geographic location of the building; 3) size of the building; and 4) applicable energy codes.

127. (Original)The method of claim 126, further comprising:

indent automatically providing for the representation at least one of the following defaults: 1) interior/exterior constructions; 2) interior/exterior lighting equipment; 3) schedules of operations for interior/exterior lights; 4) interior/exterior equipment; 5) schedules of operations for interior/exterior equipment; 6) air flow information; 7) schedules of operations for heating, ventilation and/or air conditioning equipment; 8) number of people; 9) schedules of occupancy for people; and 10) any additional information necessary to conduct a building energy analysis.

128. (Original)The method of claim 126, further comprising:

indent obtaining weather-related information from a weather source over the computer network based on at least one of: 1) a location of the building; and 2) a location geographically nearest to the location of the building wherein there is weather-related information available for the location.

129. (Currently Amended)    The method of claim 126, wherein:

indent the weather-related information ~~can include~~ includes design day parameters.

130. (Original)The method of claim 126, further comprising:

indent establishing the minimum required size/power of HVAC equipment.

131. (Original)The method of claim 126, further comprising:

indent integrating into the representation the defaults.

132. (Currently Amended)     The method of claim 126 wherein:

the representation ~~can be~~ is in one of the following forms: 1) Extensible Markup Language (XML); 2) Green Building XML; and 3) IFC (Industry Foundation Classes).

133. (Currently Amended)     The method of claim 126 wherein:

the plurality of defaults ~~can include~~ include at least one of:  1) minimum required efficiency of HVAC equipment; 2) amount of domestic hot water use; 3) schedules of operations for lights, exterior lights, interior equipment, and/or exterior equipment; and 4)  constructions for roof, ceilings, walls, and/or floors; 5) any additional information necessary to conduct a building energy analysis.

134. (Currently Amended)     The method of claim 126 wherein:

the plurality of defaults ~~can include~~ include an envelop construction type, wherein the envelope construction type ~~can include~~ includes at least one of the following:  interior walls, floors, underground walls, underground ceilings, underground slabs, doors, glass, windows and skylights.

135. (Original)The method of claim 126 wherein:

the representation includes at least one space.

136. (Original)The method of claim 135, further comprising:

providing a default space type.

137. (Currently Amended)     The method of claim 133, further comprising:

providing defaults for the at least one space, wherein the defaults ~~can include~~ include at least one of: lighting, light levels and internal equipment.

138. (Currently Amended)     The method of claim 133, further comprising:

providing defaults for the at least one space, wherein the defaults ~~can include~~ include air flow information including at least one of:  information to account for air leaking due to

infiltration, a number of people in the space, an amount of heat and moisture that occupants will emit, an occupancy schedule, a fresh air requirements for the space, a lighting schedule, an unoccupied lighting schedule, equipment schedules, and the desired temperature.

139. (Original)The method of claim 135, further comprising:

    assigning each of the at least one spaces to an HVAC zone.

140. (Currently Amended)    A system comprising:

    means for providing a first representation of the building wherein the first representation is available on the computer network, and wherein the first representation is a comprehensive and accurate geometric representation of the building;

    means for automatically providing default values for the first representation appropriate for performing an energy simulation of the building wherein the default values include one or more of: 1) heating ventilation and air conditioning equipment (HVAC); 2) ~~weaher-related~~ weather-related information; 3) interior/exterior constructions; 4) interior/exterior lighting equipment; 5) schedules of operations for interior/exterior lights; 6) interior/exterior equipment; 7) schedules of operations for interior/exterior equipment; 8) air flow information; 9) schedules of operations for heating, ventilation and/or air conditioning equipment; 10) number of people; 11) schedules of occupancy for people; and 12) any additional information necessary to conduct a building energy analysis;

    means for performing an energy analysis of the building based on the first representation and the default values;

    means for providing results of the energy analysis wherein the results are available on the computer network; and

    means for storing the results of the energy analysis;

    wherein the default values ~~can be~~ are based on at least one of: 1) type of the building; 2) geographic location of the building; 3) size of the building; and 4) applicable energy codes.

141. (Currently Amended)    A system for analyzing the energy requirements of a building using a computer network, comprising:

a defaults component ~~operable to automatically provide~~ that automatically provides default values for a first representation of the building appropriate for performing an energy simulation of the building, and wherein the first representation is available on the computer network;

an analyzer component coupled to the defaults component ~~and operable to performing~~ wherein said analyzer component performs an energy analysis of the building based on the first representation and the default values; and

a computer readable storage medium that stores results of the energy analysis;

wherein the results of the energy analysis ~~can be~~ are made available on the computer network;

wherein the default values ~~can be~~ are based on at least one of: 1) type of the building; 2) geographic location of the building; 3) size of the building; and 4) applicable energy codes; and

wherein the first representation is a comprehensive and accurate geometric representation of the building;

142. (Original) The system of claim 141 wherein:

the comprehensive and accurate geometric representation of the building includes a complete and detailed geometry of: the building, spaces in the building, building surfaces and building openings.

143. (Original) The system of claim 141 wherein:

the first representation is provided by a 3D-CAD or BIMA application.

144. (Currently Amended) The system of claim 141, further comprising:

automatically providing default values for the first representation appropriate for performing an energy analysis of the building, wherein the default values ~~can include~~ include at least one of: 1) heating, ventilation and/or air conditioning equipment; 2) weather-related information; 3) interior/exterior constructions; 4) interior/exterior lighting equipment; 5) schedules of operations for interior/exterior lights; 6) interior/exterior equipment; 7) schedules of operations for interior/exterior equipment; 8) air flow information; 9) schedules of operations for heating, ventilation and/or air conditioning equipment; 10) number of people; 11) schedules of

occupancy for people; and 12) any additional information necessary to conduct a building energy analysis.

145. (Currently Amended)   The system of claim 144 wherein:

the default values ~~can be~~ are based on 1) building type; and 2) geographic location of the building.

146. (Original)The system of claim 144, further comprising:

incorporating the default values into the first representation of the building.

147. (Currently Amended)   The system of claim 141 wherein:

the first representation of the building ~~can be~~ are in one of the following forms: 1) Extensible Markup Language (XML); 2) Green Building XML (gbXML); and 3) International Alliance for Interoperability Industry Foundation Classes.

148. (Original)The system of claim 147 wherein:

the first representation of the building is at least one of: 1) compressed; 2) encoded; and 3) encrypted.

149. (Currently Amended)   The system of claim 141 wherein:

the first representation of the building ~~can include~~ includes at least one of: 1) a building type; 2) a space; 3) a three dimensional representation of the building; 4) a location of the building; 5) at least one surface; and 6) an opening.

150. (Currently Amended)   The system of claim 149 wherein:

the at least one space ~~can include~~ includes at least one of:  1) space type; and 2) at least one surface.

151. (Currently Amended)   The system of claim 141 wherein:

the results of the energy analysis ~~can include~~ include at least one of: 1) energy cost over a period of time; 2) peak demand over a period of time; 3) fuel use over a period of time; 4)

electricity use over a period of time; 5) airflow requirements over a period of time; 6) comfort level over a period of time; 7) temperatures over a period of time; 8) cooling equipment sizes; 9) whether or not a building complies with applicable energy codes; 10) what needs to be done in order to bring a building into conformance with applicable energy codes; 11) heating equipment sizes; and 12) any information in the first representation and/or any default values provided for the first representation.

152. (Currently Amended)    The system of claim 141 wherein:

the results of the energy analysis ~~can apply~~ apply to at least one of: 1) the building; 2) one or more spaces within the building; and 3) any information in the first representation and/or any default values provided for the first representation.

153. (Original)The system of claim 141 wherein:

the results of the energy analysis are persisted.

154. (Original)The system of claim 141 further comprising:

incorporating the results of the energy analysis into a second representation of the building, wherein the second representation of the building is based on the first representation.

155. (Original)The system of claim 144, further comprising:

incorporating the results of the energy analysis into a second representation of the building, wherein the second representation of the building is based on the first representation.

156. (Original)The system of claim 141, further comprising:

utilizing the results of the energy analysis to optimize the first representation of the building.

157. (Currently Amended)    The system of claim 156 wherein:

optimization ~~can include~~ includes optimizing at least one of the following parameters: 1) building orientation; 2) glazing; 3) construction materials; 4) heating air conditioning and/or

ventilation systems; 5) lighting and light control schemes; and 6) any information in the first representation.

158. (Currently Amended)    The system of claim 157 wherein:
     each of the parameters ~~can be~~ is held constant or restricted to a range of possible values.

159. (Currently Amended)    The system of claim 141 wherein:
     the energy analysis ~~can be~~ is performed in whole or in part by a computer software program. ~~at least one of the following programs: 1) DOE-2; and 2) EnergyPlus.~~

160. (Currently Amended)    The system of claim 141 wherein:
     the computer network ~~can include~~ includes at least one of the following: 1) the Internet; 2) public networks; and 3) private networks.

161. (Original)The system of claim 141 wherein:
     the first representation of the building is a 3D mono-planarization representation.

162. (Original)The system of claim 141, further comprising:
     providing content to a user based on information in at least one of: 1) the first representation; and 2) the results.

163. (Original)The system of claim 144, further comprising:
     providing content to a user based on information in at least one of: 1) the first representation; 2) the defaults; and 3) the results.

164. (Currently Amended)    The system of claim 163 wherein:
     the content ~~can include~~ includes advertisements.

165. (Currently Amended)    The system of claim 164 wherein:
     an advertisement ~~can be~~ is selected by a user; and

wherein the selection ~~can cause~~ causes at least one of the following to be made accessible to a third party: 1) user contact information; 2) information based on the first representation; 3) information based on the energy analysis results; and 4) information based on default values appropriate for performing an energy analysis of the building.

166. (Currently Amended)    The system of claim 164 wherein:

an advertisement ~~can be~~ is selected by a user; and

wherein the selection ~~can cause~~ causes the user to be prompted for permission to make accessible at least one of the following to a third party:   1) user contact information; 2) information based on the first representation; 3) information based on the energy analysis results; and 4) information based on default values appropriate for performing an energy analysis of the building.

167. (Original)The system of claim 141, further comprising:

requesting a bid from a third party based on at least one of: 1) the first representation; 2) the energy analysis results; and 3) default values appropriate for performing an energy analysis of the building.

168. (Original)The system of claim 141 wherein:

a first user can allow other users to access and/or manipulate at least one of: 1) the first representation; 2) the energy analysis results; and 3) default values appropriate for performing an energy analysis of the building.

169. (Currently Amended)    A machine readable medium having instructions stored thereon that when executed by a processor cause a system to:

provide a first representation of the building wherein the first representation is available on the computer network, and wherein the first representation is a comprehensive and accurate geometric representation of the building;

provide default values for the first representation appropriate for performing an energy simulation of the building wherein the default values include one or more of: 1) heating ventilation and air conditioning equipment (HVAC); 2) weather-related information; 3)

interior/exterior constructions; 4) interior/exterior lighting equipment; 5) schedules of operations for interior/exterior lights; 6) interior/exterior equipment; 7) schedules of operations for interior/exterior equipment; 8) air flow information; 9) schedules of operations for heating, ventilation and/or air conditioning equipment; 10) number of people; 11) schedules of occupancy for people; and 12) any additional information necessary to conduct a building energy analysis;

perform an energy analysis of the building based on the first representation and the default values;

provide results of the energy analysis wherein the results are available on the computer network; and

wherein the default values ~~can be~~ are based on at least one of: 1) type of the building; 2) geographic location of the building; 3) size of the building; and 4) applicable energy codes.

170. (Original)The machine readable medium of claim 169 wherein:

the comprehensive and accurate geometric representation of the building includes a complete and detailed geometry of: the building, spaces in the building, building surfaces and building openings.

171. (Original)The machine readable medium of claim 169 wherein:

the first representation is provided by a 3D-CAD or BIMA application.

172. (Canceled)

173. (Currently Amended)    The machine readable medium of claim 172 wherein:

the default values ~~can be~~ are based on 1) building type; and 2) geographic location of the building.

174. (Original)The machine readable medium of claim 172, further comprising instructions that when executed cause the system to:

incorporate the default values into the first representation of the building.

175. (Currently Amended)    The machine readable medium of claim 169 wherein:

the first representation of the building ~~can be~~ is in one of the following forms: 1) Extensible Markup Language (XML); 2) Green Building XML (gbXML); and 3) International Alliance for Interoperability Industry Foundation Classes.

176. (Original)The machine readable medium of claim 175 wherein:

the first representation of the building is at least one of: 1) compressed; 2) encoded; and 3) encrypted.

177. (Currently Amended)     The machine readable medium of claim 169 wherein:

the first representation of the building ~~can include~~ includes at least one of: 1) a building type; 2) a space; 3) a three dimensional representation of the building; 4) a location of the building; 5) at least one surface; and 6) an opening.

178. (Currently Amended)     The machine readable medium of claim 177 wherein:

the at least one space ~~can include~~ includes at least one of:  1) space type; and 2) at least one surface.

179. (Currently Amended)     The machine readable medium of claim 169 wherein:

the results of the energy analysis ~~can include~~ include at least one of: 1) energy cost over a period of time; 2) peak demand over a period of time; 3) fuel use over a period of time; 4) electricity use over a period of time; 5) airflow requirements over a period of time; 6) comfort level over a period of time; 7) temperatures over a period of time; 8) cooling equipment sizes; 9) whether or not a building complies with applicable energy codes; 10) what needs to be done in order to bring a building into conformance with applicable energy codes; 11) heating equipment sizes; and 12) any information in the first representation and/or any default values provided for the first representation.

180. (Currently Amended)     The machine readable medium of claim 169 wherein:

the results of the energy analysis ~~can apply~~ apply to at least one of: 1) the building; 2) one or more spaces within the building; and 3) any information in the first representation and/or any default values provided for the first representation.

181. (Original)The machine readable medium of claim 169 wherein:

     the results of the energy analysis are persisted.

182. (Original)The machine readable medium of claim 169, further comprising instructions that when executed cause the system to:

     incorporate the results of the energy analysis into a second representation of the building, wherein the second representation of the building is based on the first representation.

183. (Original)The machine readable medium of claim 169 further comprising instructions that when executed cause the system to:

     incorporate the results of the energy analysis into a second representation of the building, wherein the second representation of the building is based on the first representation.

184. (Original)The machine readable medium of claim 169, further comprising instructions that when executed cause the system to:

     utilize the results of the energy analysis to optimize the first representation of the building.

185. (Currently Amended)    The machine readable medium of claim 184 wherein:

     optimization ~~can include~~ includes optimizing at least one of the following parameters: 1) building orientation; 2) glazing; 3) construction materials; 4) heating air conditioning and/or ventilation systems; 5) lighting and light control schemes; and 6) any information in the first representation.

186. (Currently Amended)    The machine readable medium of claim 185 wherein:

     each of the parameters ~~can be~~ is held constant or restricted to a range of possible values.

187. (Currently Amended)    The machine readable medium of claim 169 wherein:

     the energy analysis ~~can be~~ is performed in whole or in part by <u>a computer software program.</u> ~~at least one of the following programs: 1) DOE-2; and 2) EnergyPlus.~~

188. (Currently Amended)    The machine readable medium of claim 169 wherein:

the computer network ~~can include~~ includes at least one of the following: 1) the Internet; 2) public networks; and 3) private networks.

189. (Original)The machine readable medium of claim 169 wherein:

the first representation of the building is a 3D mono-planarization representation.

190. (Original)The machine readable medium of claim 169, further comprising instructions that when executed cause the system to:

provide content to a user based on information in at least one of: 1) the first representation; and 2) the results.

191. (Original)The machine readable medium of claim 169, further comprising instructions that when executed cause the system to:

providing content to a user based on information in at least one of: 1) the first representation; 2) the defaults; and 3) the results.

192. (Currently Amended)    The machine readable medium of claim 191 wherein:

the content ~~can include~~ includes advertisements.

193. (Currently Amended)    The machine readable medium of claim 192 wherein:

an advertisement ~~can be~~ is selected by a user; and

wherein the selection ~~can cause~~ causes at least one of the following to be made accessible to a third party: 1) user contact information; 2) information based on the first representation; 3) information based on the energy analysis results; and 4) information based on default values appropriate for performing an energy analysis of the building.

194. (Original)The machine readable medium of claim 192 wherein:

an advertisement ~~can be~~ is selected by a user; and

wherein the selection ~~can cause~~ causes the user to be prompted for permission to make accessible at least one of the following to a third party:   1) user contact information; 2) information based on the first representation; 3) information based on the energy analysis results; and 4) information based on default values appropriate for performing an energy analysis of the building.

195. (Original)The machine readable medium of claim 169, further comprising instructions that when executed cause the system to:

request a bid from a third party based on at least one of: 1) the first representation; 2) the energy analysis results; and 3) default values appropriate for performing an energy analysis of the building.

196. (Original)The machine readable medium of claim 169 wherein:

a first user can allow other users to access and/or manipulate at least one of: 1) the first representation; 2) the energy analysis results; and 3) default values appropriate for performing an energy analysis of the building.